



FORM PTO-1449  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use several sheets if necessary)			ATTY. DOCKET NO. EPC-00007	SERIAL NO. 10/731,669				
			APPLICANT Brown et al.					
			FILING DATE December 8, 2003	GROUP Not Yet Known				
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
BMA	AA	3,634,807	01/1972	Grobe et al.				
	AB	4,998,885	03/1991	Brian S. Beaman				
	AC	5,152,695	10/1992	Grabbe , et al.				
	AD	5,199,879	04/1993	Kohn et al.				
	AE	5,228,861	07/1993	Dimitry G. Grabbe				
	AF	5,257,950	11/1993	Lenker et al.				
	AG	5,468,655	11/1995	Greer				
	AH	5,530,288	06/1996	David B. Stone				
	AI	5,532,612	07/1996	Liang				
	AJ	5,593,903	01/1997	Beckenbaugh et al.				
	AK	5,632,631	05/1997	Fjelstad et al.				
	AL	5,772,451	06/1998	Dozier et al.				
	AM	5,791,911	08/1998	Fasano et al.				
	AN	5,802,699	09/1998	Fjelstad et al.				
	AO	5,812,378	09/1998	Fjelstad et al.				
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
	AP	EP 0692823 A1	01/1996	Europe			X	
	AQ	JP2000011443	04/2000	Japan			X	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
BMA	AR	U.S. Publication No. 2002/0011859 A1; 01/31/02; Smith et al.						
	AS	U.S. Publication No. 2002/0058356 A1; 05/16/02; Oya						
	AT	U.S. Publication No. 2002/0079120 A1; 06/27/02; Eskildsen et al.						
	AU	U.S. Publication No. 2002/0129894 A1; 09/19/02; Liu et al.						

<i>B. Ammons</i>	EXAMINER	DATE CONSIDERED
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
BG	AV	5,842,273	12/1998	Schar			
	AW	5,860,585	01/1999	Rutledge et al.			
	AC	5,896,038	04/1999	Budnaitis et al.			
	AY	5,934,914	08/1999	Fjelstad et al.			
	AZ	5,967,797	10/1999	Maldonado			
	BA	6,019,611	02/2000	McHugh et al.			
	BB	6,032,356	03/2000	Eldridge et al.			
	BC	6,063,640	05/2000	Mizukoshi et al.			
	BD	6,133,534	10/2000	Fukutomi et al.			
	BE	6,156,484	12/2000	Bassous et al.			
	BF	6,184,699	02/2001	Smith et al.			
	BG	6,196,852	03/2001	Neumann , et al.			
	BH	6,200,143	03/2001	Haba et al.			
	BI	6,204,065	03/2001	Toshimasa Ochiai			
	BJ	6,205,660	03/2001	Fjelstad et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
BK	BK	JP2001203435	07/2001	Japan				
	BL	9602068	01/1996	WO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

NB	BM	U.S. Publication No. 2002/0133941 A1;09/26/02;Akram et al.
	BN	U.S. Publication No. 2002/0146919 A1;10/10/02;Cohn
	BO	U.S. Publication No. 2002/0179331 A1;12/05/02;Brodsky et al.
	BP	U.S. Publication No. 2003/0089936 A1;05/15/03;McCormack et al.

EXAMINER <i>Brigette Hammes</i>	DATE CONSIDERED 5-16-05
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
BQ		6,208,157	03/2001	Akram et al.			
BR		6,224,392	05/2001	Fasano et al.			
BS		6,250,933	06/2001	Khoury et al.			
BT		6,264,477	07/2001	Smith et al.			
BU		6,293,808	09/2001	Toshimasa Ochiai			
BV		6,298,552	10/2001	Yu-Sung Li			
BW		6,335,210	01/2002	Farooq et al.			
BX		6,336,269	01/2002	Eldridge et al.			
BY		6,337,575	01/2002	Akram			
BZ		6,373,267	04/2002	Hiroi			
CA		6,374,487	04/2002	Haba et al.			
CB		6,392,524	05/2002	Biegelsen et al.			
CC		6,420,661	07/2002	Di Stefano et al.			
CD		6,420,789	07/2002	Tay et al.			
CE		6,420,884	07/2002	Khoury et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
186	CF	9744859	11/1997	WO				
187	CG	0213253	02/2002	WO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

186	CH	U.S. Publication No. 2003/0096512 A1;05/22/03;Cornell
187	CI	U.S. Publication No. 2003/0099097 A1;05/29/03;Mok et al.
	CJ	U.S. Publication No. 2003/0147197 A1;08/07/03;Uriu et al.
	CK	U.S. Publication No. 2003/0194832 A1;10/16/03;Lopata et al.

EXAMINER <i>Briggette Hammond</i>	DATE CONSIDERED <i>5-16-08</i>
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>BK</i>	CL	6,428,328	08/2002	Haba et al.			
	CM	6,437,591	08/20/02	Farnworth et al.			
	CN	6,442,039	08/2002	Schreiber			
	CO	6,461,892	08/2002	Masud Beroz			
	CP	6,474,997	11/2002	Toshimasa Ochiai			
	CQ	6,492,251	12/2002	Haba et al.			
	CR	6,520,778	02/2003	Eldridge et al.			
	CS	6,551,112	04/2003	Li et al.			
	CT	6,616,966	09/2003	Mathieu et al.			
	CU	6,627,092	09/2003	Clements , et al.			
	CV	6,640,432	11/2003	Mathieu, et al			
	CW	6,671,947	01/2004	Mart T. Bohr			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>BK</i>	CX	An article entitled "Patented Socketing System for the BGA/CSP Technology" by E-tec Interconnect Ltd., pages 1-4					
	CY	Gary B. Kromann et al., "Motorola's PowerPC 603 and PowerPC 604 RISC Microprocessor: the C4/Ceramic-ball-grid Array Interconnect Technology", Motorola Advanced Packaging Technology, Motorola, Inc., 1996, pages 1-10					
	CZ	Ravi Mahajan et al., "Emerging Directions for Packaging Technologies", Intel Technology Journal, V. 6, Issue 02, 16 May 2002, pages 62-75					

EXAMINER <i>BRIGGETTE HAMMONE</i>	DATE CONSIDERED <i>5-16-08</i>
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PTO/SB/08A (10-01)

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Substitute for form 1449A/PTO				<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	10/731,669
				Filing Date	December 8, 2003
				First Named Inventor	BROWN et al.
				Art Unit	2833
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	EPC-00007

## **U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number- Kind Code <sup>2</sup> (if known)			
		US-4,893,172	01/09/1990	Matsumoto et al.	
		US-4,998,885	03/12/1991	Beaman	
		US-5,152,695	10/06/1992	Grabbe et al	
		US-5,530,288	06/25/1996	Stone	
		US-5,772,451	06/30/1998	Dozier II, et al.	
		US-5,791,911	08/11/1998	Fasano et al.	
		US-5,802,699	09/08/1998	Fjelstad et al.	
		US-6,019,611	02/01/2000	McHugh et al.	
		US-6,042,387	03/28/2000	Jonaldi	
		US-6,196,852	03/06/2001	Neumann et al.	
		US-6,442,039	08/27/2002	Schreiber	
		US-6,517,362	02/11/2003	Hirai et al.	
		US-6,520,778	02/18/2003	Eldridge et al.	
		US-6,551,112	04/22/2003	Li et al.	
		US-6,627,092	09/30/2003	Clements et al.	
		US-6,640,432	11/04/2003	Mathieu et al.	
		US-6,661,247	12/09/03	Maruyama et al.	
		US-6,664,131	12/16/03	Jackson	
		US-			
		US-			

## **FOREIGN PATENT DOCUMENTS**

Examiner Signature	Krisette Hammons	Date Considered	5-16-05
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Application Number</b>	10/731,669
				<b>Filing Date</b>	December 8, 2003
				<b>First Named Inventor</b>	BROWN et al.
				<b>Art Unit</b>	2833
				<b>Examiner Name</b>	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	EPC-00007

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Signature	Brigitte Hammons	Date Considered	5-16-05
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